

Date: Thu, 15 Apr 93 13:02:00 PDT
From: Ham-Policy Mailing List and Newsgroup <ham-policy@ucsd.edu>
Errors-To: Ham-Policy-Errors@UCSD.Edu
Reply-To: Ham-Policy@UCSD.Edu
Precedence: Bulk
Subject: Ham-Policy Digest V93 #98
To: Ham-Policy

Ham-Policy Digest Thu, 15 Apr 93 Volume 93 : Issue 98

Today's Topics:

 1500 watts too much? (7 msgs)
 EME absolutely needs 1500 watts? (was Re: 1500 watts too much?)
 Let each determine their own incentive!
 re: 1500 watts

Send Replies or notes for publication to: <Ham-Policy@UCSD.Edu>
Send subscription requests to: <Ham-Policy-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Policy Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-policy".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Thu, 15 Apr 1993 12:55:07 GMT
From: swrinde!zaphod.mps.ohio-state.edu!howland.reston.ans.net!gatech!wa4mei!
ke4zv!gary@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

[Stories about being unjustly blamed for RFI deleted]

I had the reverse situation occur. I **was** trashing a neighbor's
TV with my signals. He came over with a baseball bat in his hand,
very angry. I told him it couldn't be me, but I'd be glad to come
over and look at the problem. He calmed down and we went back to
his house. Sure enough there was terrible interference in the
video and a distinctive BRAAAAAAP repeating in the audio. I told
the fellow that it certainly looked bad, and it was probably that
new vehicle locator service that was taking over one of our ham
bands. I also mentioned that he'd get better pictures if he pointed
his antenna toward the TV station instead of 180 degrees away from
it. He thought LPs pointed like an arrow. I then walked back over

to my house and checked on the progress of the packet file transfer
I was doing. :-) :-)

After he reoriented his antenna so it pointed toward the TV station
instead of my house, his TVI problem went away. It was classic overload.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Thu, 15 Apr 1993 14:36:06 GMT
From: swrinde!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

In article <1374@arrl.org> jlbloom@arrl.org (Jon Bloom) writes:
>In rec.radio.amateur.policy, v111qheg@ubvmsb.cc.buffalo.edu (P.VASILION) writes:

>>

>> Like I said in my post, my 1.5 KW E and H field radiation from
>>my 4 element monobander at 70 feet is far far less disruptive to my
>>next door neighbor who is 100 feet away from the antenna than the 60 cycle
>>AC his electric heater or his television set gives off. Don't for get that
>>unless you run AM, your 1.5KW is NONCONTINUOUS! My CW QSO with Bovet lasts
>>about 3 - 5 seconds. His viewing of TV lasts for hours.

>

>On what basis do you consider the 60-Hz fields from his consumer
>equipment more "disruptive" than your transmission? The 60-Hz field
>isn't materially interfering with the operation of his other
>appliances (e.g., TV), so clearly interfering RF signals are more
>disruptive on that basis, regardless of who's at fault.

Ah but they may be more disruptive to the TV. Consider the lowly
fishtank heater or the average light dimmer. These things spray RFI
all over the spectrum. And being adjacent to the susceptible receiver,
they are much greater nuisances. Most consumer equipment has adequate
suppression of 60 Hz, but not the harmonics and spurious products
often produced by 60 Hz equipment.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary

534 Shannon Way | Guaranteed! | emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | | |

Date: Thu, 15 Apr 1993 17:41:25 GMT
From: swrinde!gatech!howland.reston.ans.net!agate!headwall.Stanford.EDU!CSD-
NewsHost.Stanford.EDU!SAIL.Stanford.EDU!andy@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

In article <1993Apr14.173709.14362@ssc.com> markz@ssc.com (Mark Zenier) writes:
>Previous postings about the RF design letter said that the author
>suggested that the power levels be dropped by a factor of 100.
>
>What does it really say?

That failing to tar and feather ANYONE who starts a sentence with
"no one needs...." is a really bad idea?

-andy
--

Date: 15 Apr 93 12:51:12 CDT
From: usc!elroy.jpl.nasa.gov!ncar!uchinews!raistlin!timbuk.cray.com!
hemlock.cray.com!cherry10!dadams@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

In article 16366@qualcomm.com, karn@servo.qualcomm.com (Phil Karn) writes:

|
|The media is still ablaze over this issue, at least here in San Diego.
|A couple is currently suing San Diego Gas and Electric for their power
|lines having caused their daughter's cancer.

|
|And unless you've been under a rock for the past six months, I'm sure
|you've heard by now about the "brain cancer caused by cell phone"
|case.

|
|We are seeing first hand the real costs of a totally inadequate US
|educational system.

|
|Phil

Well I believe it is greed, more than stupidity, motivating those who ask,
"who can I sue?"

--David C. Adams Statistician Cray Research Inc. dadams@cray.com

They moved all the streets around while you were sleeping last night.

Date: 15 Apr 93 12:26:38 EDT

From: swrinde!zaphod.mps.ohio-state.edu!darwin.sura.net!udel!news.intercon.com!
psinntp!arrrl.org@network.UCSD.EDU

Subject: 1500 watts too much?

To: ham-policy@ucsd.edu

In rec.radio.amateur.policy, karn@servo.qualcomm.com (Phil Karn) writes:

>In article <1993Apr14.142107.8232@hemlock.cray.com> dadams@cray.com writes:

>>Last year all the media was ablaze over this study that had been done

>>wherein it was claimed that children who lived and grew up near high tension

>>power lines were more likely to get leukemia than those who did not.

>

>The media is still ablaze over this issue, at least here in San Diego.

>A couple is currently suing San Diego Gas and Electric for their power

>lines having caused their daughter's cancer.

Here, too. I saw a report on one of the local stations about some folks in this state (I think in New Haven) who are sure the nearby substation caused the several cases of childhood cancers in the neighborhood.

I think the neighbors here are suing the utility, too. The report was awash in neat graphics showing fields radiating from power lines and the like. It was considerably longer on graphics and weeping mothers than it was on objective facts.

(By the way, this report was on the station with the lowest news ratings among the local network affiliates. Recently in a lead story they showed nude photos of a state worker who claims she was sexually harrssed because these same photos were passed around her office. I mention this only to indicate the level of journalism practiced by the station in question.)

Jon Bloom, KE3Z | jlbloom@arrrl.org

American Radio Relay League | Justice is being allowed to do whatever

225 Main St. | I like. Injustice is whatever prevents

Newington, CT 06111 | my doing so. -- Samuel Johnson

Date: 15 Apr 93 12:15:08 EDT

From: swrinde!zaphod.mps.ohio-state.edu!darwin.sura.net!udel!news.intercon.com!
psinntp!arrrl.org@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

In rec.radio.amateur.policy, v111qheg@ubvmsd.cc.buffalo.edu (P.VASILION) writes:
>In article <1374@arrrl.org>, jlbloom@arrrl.org (Jon Bloom) writes...
>>In rec.radio.amateur.policy, v111qheg@ubvmsb.cc.buffalo.edu (P.VASILION) writes:
[deleted some nth-level quotations]
>>> Like I said in my post, my 1.5 KW E and H field radiation from
>>>my 4 element monobander at 70 feet is far far less disruptive to my
>>>next door neighbor who is 100 feet away from the antenna than the 60 cycle
>>>AC his electric heater or his television set gives off. Don't for get that
>>>unless you run AM, your 1.5KW is NONCONTINUOUS! My CW QSO with Bovet lasts
>>>about 3 - 5 seconds. His viewing of TV lasts for hours.
[deleted]
>>If, on the other hand, you are talking about biological effects, I'd
>>like a pointer to the research that leads to your conclusion. I'm not
>>aware that the existing science on the effects of either 60-Hz or
>>low-level RF fields supports such a general statement.
>
> I'm not going to break the 1st rule of USENET and go looking up
>every reference, as my time is limited, however several recent studies have
>shown that constant 60Hz electromagnetic fields have potential to do nasty
>things and cause a host of nasty disorders (lukemia et al.). ONE source I
>might direct you to last years book that had a couple pages on EMI and such.
>I recal it stated that 60Hz was much more of a concern as RF. You might also
>want to check with KN2M, this division's expert on biological effects of
>RF and EM radiation.

The most recent study I've heard of (widely reported in the press a month or so ago) concluded that there *wasn't* evidence of 60-Hz effects. And the EPA recently called for more study of the effects of electromagnetic fields, saying "too little is known to guage risks from exposure to sources ranging from power lines to every-day items, such as TV sets and hair dryers." (May 1993 QST magazine, quoting an AP report.)

I don't want to debate the effects of 60-Hz fields. I don't know enough about it, and apparently no one else does either, judging from what the EPA says. I just don't want people running around saying "don't worry about my ham radiation 'cause your electric blanket is even worse" when there isn't evidence to support such a claim. That's the most damaging attitude hams can take toward EMI problems--and there *are* problems.

Jon Bloom, KE3Z	jlbloom@arrrl.org
American Radio Relay League	Justice is being allowed to do whatever
225 Main St.	I like. Injustice is whatever prevents
Newington, CT 06111	my doing so. -- Samuel Johnson

Date: Thu, 15 Apr 1993 17:03:25 GMT
From: swrinde!emory!gatech!howland.reston.ans.net!zaphod.mps.ohio-state.edu!
uwm.edu!linac!att!att-out!cbnewsj!w1gd@network.UCSD.EDU
Subject: 1500 watts too much?
To: ham-policy@ucsd.edu

According to Bill, KB3YV:

>Of course, that could also be because Europeans aren't allowed
>to run 1500 watts, too.

TECHNICALLY, Bill may be correct. However, it appears that MOST European countries permit amateurs to run at least 1000 watts. (And, most should agree that the RFI problems are just about the same with 1000 watts as with 1500 watts!). Unlike Bill, I am not familiar with the amateur radio regulations in Europe. However, I did quickly peruse my logs from the last ARRL DX contests and stations from the following European countries reported that they were using 1000 watts: CT, DL, EA, F, HA, HB9, LA, LY, LZ, OE, OH, OH0, OK, ON, OM, OZ, S5, SM, SP, UA, UB, YU, ZA, 404 & 9A. Looks to me like either most European countries allow power levels pretty much comparable to ours or many of these guys are operating illegally.

Gerry, W1GD

Date: 15 Apr 93 01:29:38 EDT
From: usc!howland.reston.ans.net!wupost!udel!news.intercon.com!psinnntp!
arrl.org@network.UCSD.EDU
Subject: EME absolutely needs 1500 watts? (was Re: 1500 watts too much?)
To: ham-policy@ucsd.edu

EME is certainly possible with 100 watts, even on 2 meters, if there is a really big antenna on one end or you use one of the microwave bands. But, I believe the real standard is being able to hear your own echos. This means that you are "pulling your own weight," and not relying on some else's huge array to make the contact. On 2 meters, this is roughly 16 14 foot boom yagis. With a kW, 4 yagis will allow echoes to be heard, a much more manageable array that will fit nicely on a single H frame. But, even if you have 16 yagis, a kW is sometime needed, to compensate for less than ideal conditions found when making actual contacts. Actually, the same holds true for 432, since the background noise is so much lower when the moon is in a quiet part

of the sky. (BTW anyone looking for a big 2M EME antenna farm might contact K1WHS--I think he has gone onto other challenges)

Its my opinion that a 100 watt power limit would have made 2 meter EME a curiosity, as there wouldn't be enough stations on to make it worthwhile. 100 watts, according to published reports, is plenty on 3456 and 5760 MHz, which are probably ideal frequencies in terms of the power/antenna requirements. But, I estimate the number of active EME stations to be zero on 9 and 6 cm. At 10 GHz the signal spreads out, making EME more difficult in terms of hardware. But, you see the advantage of critical mass on 10 GHz--there are stations to work and people have transverters that just need a surplus amplifier and a dish. Thus, 10 GHz is infinitely more popular than 3456 or 5760 MHz for EME right now. (a correct usage of infinitely? :-)).

In rec.radio.amateur.policy, jfw@ksr.com (John F. Woods) writes:

>rfr@urth.eng.sun.com (Richard McAllister) writes:

>>In article <-LVV5J0XZ@linac.fnal.gov> carlson@linac.fnal.gov (Kermit Carlson) writes:

>> You of course are telling me that my running 1.5K for EME is wrong...

>> p.s. care to include EME as legitimate use of power?

>>Was it just a lucky

>>coincidence that the right power level for running EME was picked as

>>the limit, or could it be that if the limit had been, say, 500 watts

>>everybody would have just figured out how to add 3dB gain to their

>>EME antenna arrays and made it work anyway?

>

>A few months ago, there was an article in QEX (I think) about someone running

>a "QRP" EME station, with a mere 100W. Of course, he had an antenna array that

>more than made up for the "low" power.

>

QST articles by Ray, W2RS using a single yagi to work people with really big antenna systems.

Zack Lau KH6CP/1

Internet: zlau@arrl.org "Working" on 24 GHz SSB/CW gear

Operating Interests: 10 GHz CW/SSB/FM

US Mail: c/o ARRL Lab 80/40/20 CW

225 Main Street

Station capability: QRP, 1.8 MHz to 10 GHz

Newington CT 06111

modes: CW/SSB/FM/packet

amtor/baudot

Phone (if you really have to): 203-666-1541

Date: Thu, 15 Apr 1993 15:43:31 GMT

From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com

Subject: Let each determine their own incentive!

To: ham-policy@ucsd.edu

jackhill@jackatak.raider.net (Jack GF Hill) writes:

>I can not argue or quarrel with your assertion that HF propagation is
>vastly different from VHF, UHF or above. I assume you have used your
>amateur privileges for more than just tooling around in your rolling
>faraday sheild yakking through a repeater with a brick and rubber
>duckie. If so, then you would know that EACH band has propagation
>characterstics quite different from the others. However, because the
>propagation characteristics are so different, even between 50MHz and
>up bands, your argument loses most of its impact. Try weak signal...
>try moon bounce (it will NOT work on HF!) try SSB probing for
>SporadicE. Play radio and stop whining!

Strange, the only time in the last 4 months I've used a repeater was to demonstrate amateur radio to a group of Boy Scouts. Listening to a bunch of people complain about the traffic is not my idea of amateur radio.

Each band does have its own characteristics, but in general HF signals and VHF/UHF/SHF have radically different propagations. The VHF/UHF/SHF bands share many forms of propagation and new ones are still being discovered.

I am playing radio and not whining. I have worked 104 countries on the low bands, around 70 on the satellites and am just short of VUCC on 2 meters, satellites, and 70 cm (will get those as soon as the village *allows* me to put my beams back up.) I've worked tropo, aurora, sporadic-E, meteor scatter, satellites, repeaters, CW, phone, packet, ATV, and every non-WARC amateur band from 80 meters through 70 centimeters.

Yet, I still can't see a rational explanation for the CW testing requirements as they are structured in the US. This has nothing to do with whining, it's called *debate*.

>(and probably is why UPS got the bottom 2 Mhz); 440 is real active and
>so on up the band. ATV, SSB, CW (yep, even on VHF -- a small piece of
>flame bait -- but as a confirmed CW-hater, how would you know? ;^)

Nice dig. Get your facts straight first. Besides, as I've said in numerous posts, I don't hate CW. I just can't see the justification for making it a requirement to access the low bands above and beyond the requirements of the ITU treaty.

As for the comments about band utilization. The only portions of the VHF/UHF bands that I've seen crowding are the repeater allocations and then *only* during drive time. Most (all?) of the 2 m and 70 cm repeater pairs are allocated in the Chicago area, but those repeaters are silent 90% of

the time. Aside from a couple of fairly active repeaters, the rest only get the drive time usage. As for the SSB portions of those bands, the only time they get crowded is during a major contest. The 6 m and 1.25 m bands are dead. I've listened to them for days on end without hearing much of anything.

Maybe Chicago is unique, but I really doubt it. Oh, and even the satellites aren't particularly well utilized. I've called CQ and heard others doing the same on A0-10 and A0-13 for long periods without answer. Numerous times I've only been able to count 3-4 in progress QSO's over the entire A0-13 mode B passband. And from others say, the other modes are even less utilized. Go figure.

73,
Todd
N9MWB

Date: Thu, 15 Apr 93 18:55:48 GMT
From: mnemosyne.cs.du.edu!nyx!mwgordon@uunet.uu.net
Subject: re: 1500 watts
To: ham-policy@ucsd.edu

In article <1993Apr14.180351.3257@ryn.mro4.dec.com> taber@cimfie.enet.dec.com (PStJTT) writes:

>Here's the story: let's say it costs and extra dollar to make a TV set
>reject interference. Television sets (and everything else, for that
>matter) sell in "price bands." That is, if you group TVs, you'll note
>that like-featured sets sell for remarkably similar money. And the
>amounts are always just short of some divisible-by-ten amount. (E.g.
>\$179.95, \$299.95, etc.)To move up to the next feature set, you go to
>another tier of prices, say, \$50 higher. If you add a dollar to the cost
>of making the TV, you can't add a dollar to the price -- you either go
>up a band or stay in the band you're in.

<...>

>Now, your interference-free TV is neat, but no consumer is going to pay
>an extra \$50 for it, so you have to eat that dollar. Make a million
>TV sets, and you have to explain to your investors why you flushed a
>million bucks down the drain. So you have your certified engineer come to
>the stockholders meeting and he/she/it explains about radio interference
>and all that jazz.

<...>

>So you've spent \$200 per set of profit
>that should be sending the investor's kid through college to fix a
>problem that has small chance of occuring.

The same argument was used by the TV industry when the the bill

requiring all new TV sets have closed caption decoders built in. What it fails to take into consideration the fact that the hard of hearing individuals need those decoders. (just as many people need RFI filters) And that an external closed caption decoder costs about \$150 dollars versus about \$1.50 for the added internal circuitry needed. (Internal CC decoders take advantage of the TV set's tuner and on-screen character generator (that are used for all those nifty programming features).) External RFI filters usually cost about \$10-\$15, which is a real bummer for a house that may need 2 or 3.

Do we need an FCC regulation change to make the manufacturers include RF filters in their TVs and VCRs? I guess so.

Mike Gordon N9LOI mwgordon@nyx.cs.du.edu

Date: Thu, 15 Apr 1993 14:30:41 GMT
From: swrinde!emory!rsiatl!ke4zv!gary@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <paulf.734203293@abercrombie.Stanford.EDU>,
<C569rq.7L9@squam.banyan.com>, <1993Apr14.174051.27139@leland.Stanford.EDU>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: No-code issue

In article <1993Apr14.174051.27139@leland.Stanford.EDU> paulf@umunhum.stanford.edu (Paul Flaherty) writes:

>In article <C569rq.7L9@squam.banyan.com> dts@banyan.com (Daniel Senie) writes:
>>The original poster SPECIFICALLY said that he was ignoring the propagation issues
>>to make a comparison.
>
>No, he said he was ignoring the reuse phenomenon of propagation, not the fact
>that half the bands are dead at any given time.
>
>> 80 meters is used in the morning and evening before the
>>propagation gets good for DX for LOCAL communications.
>
>So is VHF. The desired characteristic of HF is long distance communications,
>thus the local reuse during the day is irrelevant.

No that's not the implication at all. MF and HF groundwave range is typically better than VHF/UHF line of sight even in daytime. If the goal is statewide coverage, the lower HF bands are better than VHF/UHF round the clock, though nighttime interference due to skip is a problem. Frequency reuse is much more effective in daytime than at night, just ask any AM broadcaster. At night, frequency reuse is limited to half

continent sized zones.

Upper HF is less usable. In the daytime it's plagued by long skip with large zones of no coverage. This allows some reuse, but not to the degree found at lower HF frequencies. And the zones *change* from hour to hour and day to day. This is a very frustrating problem for network designers. At night when the bothersome skip disappears, the groundwave coverage is also less than at the lower end of the spectrum. It is the playground of the so called "DXer", but who cares? There are much cheaper ways to collect postal cards.

>>Do you handle traffic? It does not sound like it.

>As a matter of fact, I do now and then. All of it on VHF, not HF. As
>mentioned above, given the high delay tolerance, not much bandwidth is
>needed. And of course, the PACSATs give much more reliable service, and
>at VHF/UHF.

Not all traffic is tolerant of high delay. Much of the routine message passing done for PR and training purposes is, but real traffic usually has a delivery time limit, otherwise just send a postal card. That's why wider coverage methods than those offered by VHF exist. Multi-level store and forward systems, manual or automatic, are too slow in many cases, and require huge networks of stations to accomplish. Networks configured to use fewer hops, even if at lower data rates, offer less delay to time critical messages. This is important to the real traffic handling needs of emergency, relief, and H&W messages. Even "Happy birthday Uncle Joe" messages have to be delivered in a timely manner or they are worthless.

Back when I was doing a lot of traffic, we had three levels of net, state, national, and international. Most traffic only traversed two of those levels and could be delivered in 3 hours or less. Today on VHF, messages may take a week to wend their way through the system 30 miles at a time. Even using the limited capacity Pacsats often introduces a 12 hour delay due to orbital mechanics.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: Thu, 15 Apr 1993 14:50:18 GMT
From: yuma!galen@purdue.edu
To: ham-policy@ucsd.edu

References <C5ECqK.Hr3@athena.cs.uga.edu>,
<Apr13.144109.55012@yuma.ACNS.ColoState.EDU>, <11948@prijat.cs.uofs.edu>
Subject : Re: 1500 watts too much?

In article <11948@prijat.cs.uofs.edu> bill@triangle.cs.uofs.edu (Bill Gunshannon) writes:

>In article <Apr13.144109.55012@yuma.ACNS.ColoState.EDU>,
galen@picea.CFNR.ColoState.EDU (Galen Watts) writes:
>|> these kinds of problems wouldn't exist. They don't occur as much in Europe.
>
>Of course, that could also be because Europeans aren't allowed
>to run 1500 watts, too.
>bill KB3YV

Nope, they can't run 1500 watts, but I had a QSO last week with a German station, and he claimed to be running 900 watts.

This is about a 2dB difference.

I think it's because the Europeans force manufacturers to build TV's and stereos with filtering and not be so greedy.

I have nothing against making a fair profit, but I do object to mindless greed, grabbing money for the sake of having money.

I'm through,
Galen Watts, KF0YJ, 14.185 or so about 04:00 to 06:00 UTC

Date: Thu, 15 Apr 1993 14:52:05 GMT
From: usc!howland.reston.ans.net!gatech!wa4mei!ke4zv!gary@network.UCSD.EDU
To: ham-policy@ucsd.edu

References <1374@arrl.org>, <1993Apr14.142107.8232@hemlock.cray.com>,
<1993Apr15.041114.16366@qualcomm.com>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: 1500 watts too much?

In article <1993Apr15.041114.16366@qualcomm.com> karn@servo.qualcomm.com (Phil Karn) writes:

>
>We are seeing first hand the real costs of a totally inadequate US

>educational system.

That's very true. Most of the public doesn't understand that correlation != causation. Examples, most high voltage power lines are also routinely sprayed with dioxin containing defoliants, and people living in Denver have a lower cancer rate than people living in Florida, even though their exposure to ionizing radiation is twice as high. And most of the public has no clue about applying statistical significance tests to epidemiological studies. Sadly, many epidemiologists don't either. And very few of the public understand risk magnitudes. An increase from 0.5 per 100,000,000 to 1 per 100,000,000 is a doubling of risk, but isn't very significant when other daily risks are many times greater. Drowning in your own bathtub is 17 per 100,000 for example. This lack of perspective of scale is seen all the time in the anti-nuclear movement.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

Date: 15 Apr 93 09:54:37 EDT
From: world!ksr!jfw%ksr.com@uunet.uu.net
To: ham-policy@ucsd.edu

References <11947@prijat.cs.uofs.edu>, <-LVV5J0XZ@linac.fnal.gov>,
<RFM.93Apr14232311@urth.eng.sun.com>
Subject : Re: EME absolutely needs 1500 watts? (was Re: 1500 watts too much?)

rfm@urth.eng.sun.com (Richard McAllister) writes:

>In article <-LVV5J0XZ@linac.fnal.gov> carlson@linac.fnal.gov (Kermit Carlson)
writes:

> You of course are telling me that my running 1.5K for EME is wrong...

> p.s. care to include EME as legitimate use of power?

>Was it just a lucky

>coincidence that the right power level for running EME was picked as

>the limit, or could it be that if the limit had been, say, 500 watts

>everybody would have just figured out how to add 3dB gain to their

>EME antenna arrays and made it work anyway?

A few months ago, there was an article in QEX (I think) about someone running a "QRP" EME station, with a mere 100W. Of course, he had an antenna array that more than made up for the "low" power.

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